

Notice of Allowability

Application No.

10/763,307

Applicant(s)

NAKASOGI ET AL.

Examiner

Julie-Huyen L. Ngo

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 9,11-14 and 16-26.
3. ☒ The drawings filed on 23 January 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/769,074.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>10/20/04</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>1/23/2004</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input checked="" type="checkbox"/> Other <u>See Continuation Sheet</u> . |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Steven Fischman on Oct 20, 2004.

The application has been amended as follows:

CLAIMS:

1) In claims 9, 14, 20 and 23, the following limitation has been added at the end of these claims:

__ wherein said step of exposing liquid crystal molecules to light is used for controlling liquid crystal molecules so that said liquid crystal molecules may be vertically oriented with respect to said substrates __

2) Claims 10 and 15 have been cancelled.

DETAILED ACTION

Allowable Subject Matter

Claims 9, 11-14 and 16-26 are allowed.

Reasons for Allowance

Claims 9, 14, 20 and 23 are allowed since there is no prior art of record that teaches a method for fabricating a liquid crystal device comprising the step of exposing liquid crystal molecules to light for controlling liquid crystal molecules so that said liquid molecules may be vertically oriented with respect to said substrates.

Claims 11-13, 16-19, 21, 22 and 24-26 are allowed since they depend on the allowed claims.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Hirata et al. (US6013335A) disclose a liquid crystal layer includes two or more liquid crystal layer regions of different aligning conditions, and at least one of the alignment films has surface tensions which are different from each other in surface regions thereof corresponding to the respective liquid crystal layer regions of different aligning conditions.

Chen (U56097463A) discloses a liquid crystal display device capable of realizing an in-pixel divided-alignment structure by as simple a process as possible. Each of alignment films respectively provided on a pair of transparent substrates includes a first homeotropic alignment film rubbed, and a second homeotropic alignment film not rubbed and deposited on the first homeotropic alignment film.

Woo et al. (U561918368) disclose a method for fabricating a liquid crystal cell and related device includes providing an alignment layer of a light sensitive material on a substrate', and exposing the alignment layer to unpolarized or partially polarized light, to provide pretilt for the molecules of the alignment layer.


Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Julie-Huyen L. Ngo whose telephone number is (571) 272-2295. The Examiner can normally be reached on Tuesday to Friday during normal working hours.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. Robert H. Kim can be reached at (571) 272-2293.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1562.

October 20, 2004


Julie-Huyen L. Ngo
Primary Examiner
Art Unit 2871